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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/733,666	12/10/2003	Amir Naftali	100101-000100US	8872
37490 7590 09/26/2007 Trellis Intellectual Property Law Group, PC 1900 EMBARCADERO ROAD SUITE 109 PALO ALTO, CA 94303			EXAMINER LOUIE, OSCAR A	
			ART UNIT 2136	PAPER NUMBER
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

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<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/733,666	NAFTALI, AMIR	
	<b>Examiner</b>	<b>Art Unit</b>	
	Oscar A. Louie	2136	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 December 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-57 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-57 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of.
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>04/04</u> .   | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

This first non-final action is in response to the original filing of 12/10/2003. Claims 1-57 are pending and have been considered as follows.

#### ***Examiner's Note***

1. The Applicant appears to be attempting to invoke 35 U.S.C. 112 6<sup>th</sup> paragraph in Claims 30, 44, & 57 by using "means-plus-function" language. However, the Examiner notes that the only "means" for performing these cited functions in the specification appears to be computer program modules. While the claims pass the first test of the three-prong test used to determine invocation of paragraph 6, since no other specific structural limitations are disclosed in the specification, the claims do not meet the other tests of the three-prong test. Therefore, 35 U.S.C. 112 6<sup>th</sup> paragraph has not been invoked when considering these claims below.

#### ***Specification***

2. The abstract of the disclosure is objected to because it contains acronyms which have not been defined and may not be known to one of ordinary skill in the art.

- Lines 3-5 recite the acronyms "EAP" and "TCP/IP" and "TCP." It is recommended by the examiner these acronyms be written out with their shorthand. For example: "Extensible Authentication Protocol (EAP)" and "Transmission Control Protocol/Internet Protocol (TCP/IP)"

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and "Transmission Control Protocol (TCP)." The examiner notes that by including the full representation of acronyms there is a clear understanding of the art area of the invention.

Correction is required. See MPEP § 608.01(b).

3. The disclosure is objected to because of the following informalities:

- Page 11 paragraph 49 lines 1-7 of the disclosure recites, "A "computer-readable medium" for purposes of embodiments of the present invention may be any medium that can contain, store, communicate, propagate, or transport the program for use by or in connection with the instruction execution system, apparatus, system or device. The computer readable medium can be, by way of example only but not by limitation, an electronic, magnetic, optical, electromagnetic, infrared, or semiconductor system, apparatus, system, device, propagation medium, or computer memory," which is unclear and appears to include non-statutory subject matter (i.e. carrier waves or other transmission mediums for storage). Appropriate correction is required.

4. The disclosure is objected to because it contains an embedded hyperlink and/or other form of browser-executable code (see page 5 paragraph 25 line 7 of the specification which recites "www.iana.org"). Applicant is required to delete the embedded hyperlink and/or other form of browser-executable code. See MPEP § 608.01.

5. The use of the trademark "JAVA<sup>TM</sup>" has been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

***Claim Rejections - 35 USC § 101***

6. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 29, 43, & 56 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

- Claims 29, 43, & 56 recite, “a computer-readable medium...” However, the applicant has not clearly defined in their specification, “...an electronic, magnetic, optical, electromagnetic, infrared, or semiconductor system, apparatus, system, device, propagation medium, or computer memory...,” that their computer-readable medium does not include non-statutory subject matter as in accordance with 35 U.S.C. 101 (i.e. carrier waves or other transmission mediums).

***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1, 9, 11-20, 28-31, 33, 43-45, 50, 56, & 57 are rejected under 35 U.S.C. 102(b) as being anticipated by L. Blunk & J. Vollbrecht (RFC 2284).

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Claim 1:

L. Blunk & J. Vollbrecht disclose a method for providing authentication in a connection establishment process of a transmission control protocol, wherein a first processor attempts to establish a communication over a network, the method executing in a second processor comprising,

- “creating an authentication session request in a first portion of transmission control protocol data” (i.e. “The Request packet is sent by the authenticator to the peer. Each Request has a type field which serves to indicate what is being requested”) [page 5];
- “the authentication session request indicates a request to start an authentication session” (i.e. “The authenticator MUST transmit an EAP packet with the Code field set to 1 (Request)”) [page 5];
- “sending the first portion of transmission control protocol data to the first processor” (i.e. “The Request packet is sent by the authenticator to the peer”) [page 5].

Claim 9:

L. Blunk & J. Vollbrecht disclose a method for providing authentication in a connection establishment process of a transmission control protocol, wherein a first processor attempts to establish a communication over a network, the method executing in a second processor, as in Claim 1 above, further comprising,

- “the authentication session includes an Extensible Authentication Protocol (EAP) session” (i.e. “The PPP Extensible Authentication Protocol (EAP) is a general protocol for PPP authentication which supports multiple authentication mechanisms”) [page 3];

Claim 11:

L. Blunk & J. Vollbrecht disclose a method for providing authentication in a connection establishment process of a transmission control protocol, wherein a first processor attempts to establish a communication over a network, the method executing in a second processor, as in Claim 1 above, further comprising,

- “the first processor includes a client process” (i.e. “peer - The other end of the point-to-point link; the end which is being authenticated by the authenticator”) [page 3];

Claim 12:

L. Blunk & J. Vollbrecht disclose a method for providing authentication in a connection establishment process of a transmission control protocol, wherein a first processor attempts to establish a communication over a network, the method executing in a second processor, as in Claim 1 above, further comprising,

- “the second processor includes a server process” (i.e. “authenticator - The end of the link requiring the authentication. The authenticator specifies the authentication protocol to be used in the Configure-Request during Link Establishment phase”) [page 2];

Claim 13:

L. Blunk & J. Vollbrecht disclose a method for initiating an authentication session between first and second processes comprising,

- “encapsulating an authentication session request within a TCP session request” (i.e. “The authenticator MUST transmit an EAP packet with the Code field set to 1 (Request)”) [page 5].

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Claim 14:

L. Blunk & J. Vollbrecht disclose a method for initiating an authentication session between first and second processes, as in Claim 13 above, further comprising,

- “the step of encapsulating includes a substep of including an authentication session request in a transfer of data indicating a TCP session handshake” (i.e. “Additional Request packets MUST be sent until a valid Response packet is received, or an optional retry counter expires. Retransmitted Requests MUST be sent with the same Identifier value in order to distinguish them from new Requests”) [page 5].

Claim 15:

L. Blunk & J. Vollbrecht disclose a method for initiating an authentication session between first and second processes, as in Claim 14 above, further comprising,

- “the authentication session request includes setting a value in a TCP segment header” (i.e. “The authenticator MUST transmit an EAP packet with the Code field set to 1 (Request)”) [page 5].

Claim 16:

L. Blunk & J. Vollbrecht disclose a method for initiating an authentication session between first and second processes, as in Claim 15 above, further comprising,

- “a first value is set for data from the second process to the first process” (i.e. “The Request packet is sent by the authenticator to the peer”) [page 5];
- “a second value is set for data from the first process to the second process” (i.e. “The peer MUST send a Response packet in reply to a Request packet”) [page 6].



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Claim 17:

L. Blunk & J. Vollbrecht disclose a method for initiating an authentication session between first and second processes, as in Claim 14 above, further comprising,

- “the authentication session request includes creating a TCP option” (i.e. “Type - The Type field is one octet. This field indicates the Type of Request or Response”) [page 6].

Claim 18:

L. Blunk & J. Vollbrecht disclose a method for initiating an authentication session between first and second processes, as in Claim 17 above, further comprising,

- “the TCP option includes an octet” (i.e. “The Type field is one octet”) [page 6].

Claim 19:

L. Blunk & J. Vollbrecht disclose a method for initiating an authentication session between first and second processes, as in Claim 13 above, further comprising,

- “an authentication session entered as a result of the authentication session request includes an Extensible Authentication Protocol (EAP) session” (i.e. “The PPP Extensible Authentication Protocol (EAP) is a general protocol for PPP authentication which supports multiple authentication mechanisms”) [page 3].

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Claim 20:

L. Blunk & J. Vollbrecht disclose an apparatus for providing authentication in a connection establishment process of a transmission control protocol, wherein a first processor attempts to establish a communication over a network comprising,

- “an authentication session requestor for creating an authentication session request in a first portion of transmission control protocol data” (i.e. “authenticator - The end of the link requiring the authentication. The authenticator specifies the authentication protocol to be used in the Configure-Request during Link Establishment phase”) [page 2];
- “the authentication session request indicates a request to start an authentication session” (i.e. “The authenticator MUST transmit an EAP packet with the Code field set to 1 (Request)”) [page 5];
- “a transmitter for sending the first portion of transmission control protocol data to the first processor” (i.e. “The Request packet is sent by the authenticator to the peer”) [page 5].

Claim 28:

L. Blunk & J. Vollbrecht disclose an apparatus for providing authentication in a connection establishment process of a transmission control protocol, wherein a first processor attempts to establish a communication over a network, as in Claim 20 above, further comprising,

- “the authentication session includes an Extensible Authentication Protocol (EN) session” (i.e. “The PPP Extensible Authentication Protocol (EAP) is a general protocol for PPP authentication which supports multiple authentication mechanisms”) [page 3].

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Claims 29 & 30:

L. Blunk & J. Vollbrecht disclose a computer-readable medium & an apparatus including instructions for providing authentication in a connection establishment process of a transmission control protocol, wherein a first processor attempts to establish a communication over a network comprising,

- “(means for) one or more instructions for creating an authentication session request in a first portion of transmission control protocol data” (i.e. “The Request packet is sent by the authenticator to the peer. Each Request has a type field which serves to indicate what is being requested”) [page 5];
- “(means for) the authentication session request indicates a request to start an authentication session” (i.e. “The authenticator MUST transmit an EAP packet with the Code field set to 1 (Request)”) [page 5];
- “(means for) one or more instructions for sending the first portion of transmission control protocol data to the first processor” (i.e. “The Request packet is sent by the authenticator to the peer”) [page 5].

Claim 31:

L. Blunk & J. Vollbrecht disclose a method for initiating an authentication session in a connection establishment process of a transmission control protocol, wherein a first processor attempts to establish a communication with a second processor over a network, the method executing in the first processor comprising,

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- “sending a request to establish a transmission session” (i.e. “The Request packet is sent by the authenticator to the peer. Each Request has a type field which serves to indicate what is being requested”) [page 5];
- “receiving an authentication session request during a negotiation of establishment of the transmission session” (i.e. “The peer MUST send a Response packet in reply to a Request packet”) [page 6];
- “conducting authentication session communications” (i.e. “The Request packet is sent by the authenticator to the peer”) [page 5].

Claim 33:

L. Blunk & J. Vollbrecht disclose a method for initiating an authentication session in a connection establishment process of a transmission control protocol, wherein a first processor attempts to establish a communication with a second processor over a network, the method executing in the first processor, as in Claim 31 above, further comprising,

- “the step of receiving an authentication session request includes a substep of receiving the authentication session request in a first portion of transmission control protocol data” (i.e. “Responses MUST only be sent in reply to a received Request and never retransmitted on a timer. The Identifier field of the Response MUST match that of the Request”) [page 5].

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Claims 43 & 44:

L. Blunk & J. Vollbrecht disclose a computer-readable medium & apparatus including instructions for initiating an authentication session in a connection establishment process of a transmission control protocol, wherein a first processor attempts to establish a communication with a second processor over a network, the instructions executed by the first processor comprising,

- “one or more instructions for sending a request to establish a transmission session” (i.e. “The Request packet is sent by the authenticator to the peer. Each Request has a type field which serves to indicate what is being requested”) [page 5];
- “one or more instructions for receiving an authentication session request during a negotiation of establishment of the transmission session” (i.e. “The peer MUST send a Response packet in reply to a Request packet”) [page 6];
- “one or more instructions for conducting authentication session communications” (i.e. “The Request packet is sent by the authenticator to the peer”) [page 5].

Claim 45:

L. Blunk & J. Vollbrecht disclose a method for initiating an authentication session in a connection establishment process of a transmission control protocol between first and second processors communicating via a network comprising,

- “requesting, with the first processor, to establish a transmission session” (i.e. “The Request packet is sent by the authenticator to the peer. Each Request has a type field which serves to indicate what is being requested”) [page 5];

- “creating, with the second processor, an authentication session request in a first portion of transmission control protocol data” (i.e. “The Request packet is sent by the authenticator to the peer. Each Request has a type field which serves to indicate what is being requested”) [page 5];
- “the authentication session request indicates a request to start an authentication session” (i.e. “The authenticator MUST transmit an EAP packet with the Code field set to 1 (Request)”) [page 5];
- “sending the first portion of transmission control protocol data from the second processor to the first processor” (i.e. “The Request packet is sent by the authenticator to the peer. Each Request has a type field which serves to indicate what is being requested”) [page 5];
- “receiving the first portion of transmission control protocol data at the first processor” (i.e. “Responses MUST only be sent in reply to a received Request and never retransmitted on a timer. The Identifier field of the Response MUST match that of the Request”) [page 5];
- “conducting authentication session communications” (i.e. “The Request packet is sent by the authenticator to the peer”) [page 5].

Claim 50:

L. Blunk & J. Vollbrecht disclose a method for initiating an authentication session in a connection establishment process of a transmission control protocol between first and second processors communicating via a network, as in Claim 45 above, further comprising,

- “a first value is set in the first portion of transmission control protocol data for data sent from the second processor to the first processor” (i.e. “The Request packet is sent by the authenticator to the peer”) [page 5];
- “a second value is set in the first portion of transmission control protocol data for data from the first processor to the second processor” (i.e. “The peer MUST send a Response packet in reply to a Request packet”) [page 6].

Claims 56 & 57:

L. Blunk & J. Vollbrecht disclose a computer-readable medium & apparatus including instructions for initiating an authentication session in a connection establishment process of a transmission control protocol, wherein a first processor attempts to establish a communication with a second processor over a network, the instructions executed by the first processor comprising,

- “(means for) one or more instructions for requesting, with the first processor, to establish a transmission session” (i.e. “The Request packet is sent by the authenticator to the peer. Each Request has a type field which serves to indicate what is being requested”) [page 5];
- “(means for) one or more instructions for creating, with the second processor, an authentication session request in a first portion of transmission control protocol data” (i.e. “The Request packet is sent by the authenticator to the peer. Each Request has a type field which serves to indicate what is being requested”) [page 5];
- “the authentication session request indicates a request to start an authentication session” (i.e. “The authenticator MUST transmit an EAP packet with the Code field set to 1 (Request)”) [page 5];

- “(means for) one or more instructions for sending the first portion of transmission control protocol data from the second processor to the first processor” (i.e. “The Request packet is sent by the authenticator to the peer”) [page 5];
- “(means for) one or more instructions for receiving the first portion of transmission control protocol data at the first processor” (i.e. “The peer MUST send a Response packet in reply to a Request packet”) [page 5];
- “(means for) one or more instructions for conducting authentication session communications” (i.e. “The Request packet is sent by the authenticator to the peer”) [page 5].

***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 2-8, 21-27, 32, 34-42, 46-49, & 51-55 are rejected under 35 U.S.C. 103(a) as being unpatentable over L. Blunk & J. Vollbrecht (RFC 2284) in view of Mullen et al. (US-2002/0147909-A1).



Claim 2:

L. Blunk & J. Vollbrecht disclose a method for providing authentication in a connection establishment process of a transmission control protocol, wherein a first processor attempts to establish a communication over a network, the method executing in a second processor, as in Claim 1 above, but they do not disclose,

- “the transmission control protocol includes standard TCP”

however, Mullen et al. do disclose,

- “PPP is a widely used data link protocol for transmitting Transfer Control Protocol/Internet Protocol (TCP/IP) packets over dial-up telephone connections” [page 1 paragraph 0002];

Therefore, it would have been obvious for one of ordinary skill in the art at the time of the applicant’s invention to include, “the transmission control protocol includes standard TCP,” in the invention as disclosed by L. Blunk & J. Vollbrecht since EAP is an authentication means for PPP and PPP is widely used with TCP/IP, thus it would be reasonable to expect one of ordinary skill in the art to put these aspects in use together.

Claim 3:

L. Blunk & J. Vollbrecht and Mullen et al. disclose a method for providing authentication in a connection establishment process of a transmission control protocol, wherein a first processor attempts to establish a communication over a network, the method executing in a second processor, as in Claim 2 above, but L. Blunk & J. Vollbrecht do not disclose,

- “the first portion of transmission control protocol data includes a request to establish a standard TCP connection”

however, Mullen et al. do disclose,

- “PPP is a widely used data link protocol for transmitting Transfer Control Protocol/Internet Protocol (TCP/IP) packets over dial-up telephone connections” [page 1 paragraph 0002];

Therefore, it would have been obvious for one of ordinary skill in the art at the time of the applicant’s invention to include, “the first portion of transmission control protocol data includes a request to establish a standard TCP connection,” in the invention as disclosed by L. Blunk & J. Vollbrecht since EAP is an authentication means for PPP and PPP is widely used with TCP/IP, thus it would be reasonable to expect one of ordinary skill in the art to put these aspects in use together.

Claim 4:

L. Blunk & J. Vollbrecht and Mullen et al. disclose a method for providing authentication in a connection establishment process of a transmission control protocol, wherein a first processor attempts to establish a communication over a network, the method executing in a second processor, as in Claim 3 above, further comprising,

- “the first portion of transmission protocol data includes a segment used in a three-way handshake” (i.e. “Additional Request packets MUST be sent until a valid Response packet is received, or an optional retry counter expires. Retransmitted Requests MUST be sent with the same Identifier value in order to distinguish them from new Requests”) [page 9].

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Claim 5:

L. Blunk & J. Vollbrecht and Mullen et al. disclose a method for providing authentication in a connection establishment process of a transmission control protocol, wherein a first processor attempts to establish a communication over a network, the method executing in a second processor, as in Claim 2 above, further comprising,

- “the authentication session request includes setting a value in a TCP segment header”  
(i.e. “The authenticator MUST transmit an EAP packet with the Code field set to 1  
(Request)”) [page 5].

Claim 6:

L. Blunk & J. Vollbrecht and Mullen et al. disclose a method for providing authentication in a connection establishment process of a transmission control protocol, wherein a first processor attempts to establish a communication over a network, the method executing in a second processor, as in Claim 5 above, further comprising,

- “a first value is set for data from the second processor to the first processor” (i.e. “The Request packet is sent by the authenticator to the peer”) [page 5];
- “a second value is set for data from the first processor to the second processor” (i.e. “The peer MUST send a Response packet in reply to a Request packet”) [page 6].

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Claim 7:

L. Blunk & J. Vollbrecht and Mullen et al. disclose a method for providing authentication in a connection establishment process of a transmission control protocol, wherein a first processor attempts to establish a communication over a network, the method executing in a second processor, as in Claim 2 above, further comprising,

- “the authentication session request includes creating a TCP option” (i.e. “Type - The Type field is one octet. This field indicates the Type of Request or Response”) [page 6].

Claim 8:

L. Blunk & J. Vollbrecht and Mullen et al. disclose a method for providing authentication in a connection establishment process of a transmission control protocol, wherein a first processor attempts to establish a communication over a network, the method executing in a second processor, as in Claim 7 above, further comprising,

- “the option includes an octet” (i.e. “The Type field is one octet”) [page 6].

Claim 21:

L. Blunk & J. Vollbrecht disclose an apparatus for providing authentication in a connection establishment process of a transmission control protocol, wherein a first processor attempts to establish a communication over a network, as in Claim 20 above, but they do not disclose,

- “the transmission control protocol includes standard TCP”

however, Mullen et al. do disclose,

- “PPP is a widely used data link protocol for transmitting Transfer Control Protocol/Internet Protocol (TCP/IP) packets over dial-up telephone connections” [page 1 paragraph 0002];

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Therefore, it would have been obvious for one of ordinary skill in the art at the time of the applicant's invention to include, "the transmission control protocol includes standard TCP," in the invention as disclosed by L. Blunk & J. Vollbrecht since EAP is an authentication means for PPP and PPP is widely used with TCP/IP, thus it would be reasonable to expect one of ordinary skill in the art to put these aspects in use together.

Claim 22:

L. Blunk & J. Vollbrecht and Mullen et al. disclose an apparatus for providing authentication in a connection establishment process of a transmission control protocol, wherein a first processor attempts to establish a communication over a network, as in Claim 21 above, but L. Blunk & J. Vollbrecht do not disclose,

- "the first portion of transmission control protocol data includes a request to establish a standard TCP connection"

however, Mullen et al. do disclose,

- "PPP is a widely used data link protocol for transmitting Transfer Control Protocol/Internet Protocol (TCP/IP) packets over dial-up telephone connections" [page 1 paragraph 0002];

Therefore, it would have been obvious for one of ordinary skill in the art at the time of the applicant's invention to include, "the first portion of transmission control protocol data includes a request to establish a standard TCP connection," in the invention as disclosed by L. Blunk & J. Vollbrecht since EAP is an authentication means for PPP and PPP is widely used with TCP/IP, thus it would be reasonable to expect one of ordinary skill in the art to put these aspects in use together.

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Claim 23:

L. Blunk & J. Vollbrecht and Mullen et al. disclose an apparatus for providing authentication in a connection establishment process of a transmission control protocol, wherein a first processor attempts to establish a communication over a network, as in Claim 22 above, further comprising,

- “the first portion of transmission protocol data includes a segment used in a three-way handshake” (i.e. “Additional Request packets MUST be sent until a valid Response packet is received, or an optional retry counter expires. Retransmitted Requests MUST be sent with the same Identifier value in order to distinguish them from new Requests”)  
[page 9].

Claim 24:

L. Blunk & J. Vollbrecht and Mullen et al. disclose an apparatus for providing authentication in a connection establishment process of a transmission control protocol, wherein a first processor attempts to establish a communication over a network, as in Claim 21 above, further comprising,

- “the authentication session request includes setting a value in a TCP segment header”  
(i.e. “The authenticator MUST transmit an EAP packet with the Code field set to 1 (Request)”) [page 5].

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Claim 25:

L. Blunk & J. Vollbrecht and Mullen et al. disclose an apparatus for providing authentication in a connection establishment process of a transmission control protocol, wherein a first processor attempts to establish a communication over a network, as in Claim 24 above, further comprising,

- “a first value is set for data from the second processor to the first processor” (i.e. “The Request packet is sent by the authenticator to the peer”) [page 5];
- “a second value is set for data from the first processor to the second processor” (i.e. “The peer MUST send a Response packet in reply to a Request packet”) [page 6].

Claim 26:

L. Blunk & J. Vollbrecht and Mullen et al. disclose an apparatus for providing authentication in a connection establishment process of a transmission control protocol, wherein a first processor attempts to establish a communication over a network, as in Claim 21 above, further comprising,

- “the authentication session request includes creating a TCP option” (i.e. “Type - The Type field is one octet. This field indicates the Type of Request or Response”) [page 6].

Claim 27:

L. Blunk & J. Vollbrecht and Mullen et al. disclose an apparatus for providing authentication in a connection establishment process of a transmission control protocol, wherein a first processor attempts to establish a communication over a network, as in Claim 26 above, further comprising,

- “the option includes an octet” (i.e. “The Type field is one octet”) [page 6].

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Claim 32:

L. Blunk & J. Vollbrecht disclose a method for initiating an authentication session in a connection establishment process of a transmission control protocol, wherein a first processor attempts to establish a communication with a second processor over a network, the method executing in the first processor, as in Claim 31 above, but they do not disclose,

- “the step of sending a request includes a substep of sending a standard transmission control protocol (TCP) request”

however, Mullen et al. do disclose,

- “PPP is a widely used data link protocol for transmitting Transfer Control Protocol/Internet Protocol (TCP/IP) packets over dial-up telephone connections” [page 1 paragraph 0002];

Therefore, it would have been obvious for one of ordinary skill in the art at the time of the applicant’s invention to include, “the step of sending a request includes a substep of sending a standard transmission control protocol (TCP) request,” in the invention as disclosed by L. Blunk & J. Vollbrecht since EAP is an authentication means for PPP and PPP is widely used with TCP/IP, thus it would be reasonable to expect one of ordinary skill in the art to put these aspects in use together.



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Claim 34:

L. Blunk & J. Vollbrecht and Mullen et al. disclose a method for initiating an authentication session in a connection establishment process of a transmission control protocol, wherein a first processor attempts to establish a communication with a second processor over a network, the method executing in the first processor, as in Claim 32 above, but L. Blunk & J. Vollbrecht do not disclose,

- “a first portion of transmission control protocol data includes a request to establish a standard TCP connection”

however, Mullen et al. do disclose,

- “PPP is a widely used data link protocol for transmitting Transfer Control Protocol/Internet Protocol (TCP/IP) packets over dial-up telephone connections” [page 1 paragraph 0002];

Therefore, it would have been obvious for one of ordinary skill in the art at the time of the applicant’s invention to include, “a first portion of transmission control protocol data includes a request to establish a standard TCP connection,” in the invention as disclosed by L. Blunk & J. Vollbrecht since EAP is an authentication means for PPP and PPP is widely used with TCP/IP, thus it would be reasonable to expect one of ordinary skill in the art to put these aspects in use together.

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Claim 35:

L. Blunk & J. Vollbrecht and Mullen et al. disclose a method for initiating an authentication session in a connection establishment process of a transmission control protocol, wherein a first processor attempts to establish a communication with a second processor over a network, the method executing in the first processor, as in Claim 34 above, further comprising,

- “the first portion of transmission protocol data includes a segment used in a three-way handshake” (i.e. “Additional Request packets MUST be sent until a valid Response packet is received, or an optional retry counter expires. Retransmitted Requests MUST be sent with the same Identifier value in order to distinguish them from new Requests”)

[page 9].

Claim 36:

L. Blunk & J. Vollbrecht and Mullen et al. disclose a method for initiating an authentication session in a connection establishment process of a transmission control protocol, wherein a first processor attempts to establish a communication with a second processor over a network, the method executing in the first processor, as in Claim 34 above, further comprising,

- “the authentication session request includes setting a value in a TCP segment header” (i.e. “The authenticator MUST transmit an EAP packet with the Code field set to 1 (Request)”) [page 5].

Claim 37:

L. Blunk & J. Vollbrecht and Mullen et al. disclose a method for initiating an authentication session in a connection establishment process of a transmission control protocol, wherein a first processor attempts to establish a communication with a second processor over a network, the method executing in the first processor, as in Claim 36 above, further comprising,

- “a first value is set for data from the second processor to the first processor” (i.e. “The Request packet is sent by the authenticator to the peer”) [page 5];
- “a second value is set for data from the first processor to the second processor” (i.e. “The peer MUST send a Response packet in reply to a Request packet”) [page 6].

Claim 38:

L. Blunk & J. Vollbrecht disclose an apparatus for initiating an authentication session in a connection establishment process of a transmission control protocol comprising,

- “sending a request to establish a transmission session” (i.e. “The Request packet is sent by the authenticator to the peer. Each Request has a type field which serves to indicate what is being requested”) [page 5];
- “receiving an authentication session request during a negotiation of establishment of the transmission session” (i.e. “The peer MUST send a Response packet in reply to a Request packet”) [page 5];
- “conducting authentication session communications” (i.e. “The Request packet is sent by the authenticator to the peer”) [page 5];

but they do not disclose,

- “one or more processors”
- “a network interface”
- “a computer-readable medium on which is stored instructions for causing the one or more processors to perform a method”

however, Mullen et al. do disclose,

- “a processor” [page 3 paragraph 0037];
- “the computer (40) is connected to a wide area network (32), such as the Internet” [page 3 paragraph 0037];
- “memory” [page 3 paragraph 0037];

Therefore, it would have been obvious for one of ordinary skill in the art at the time of the applicant’s invention to include, “one or more processors” and “a network interface” and “a computer-readable medium on which is stored instructions for causing the one or more processors to perform a method,” in the invention as disclosed by L. Blunk & J. Vollbrecht for the purposes of having an apparatus for the method(s) to operate on.

Claim 39:

L. Blunk & J. Vollbrecht and Mullen et al. disclose an apparatus for initiating an authentication session in a connection establishment process of a transmission control protocol, as in Claim 38 above, but L. Blunk & J. Vollbrecht do not disclose,

- “standard transmission control protocol (TCP) requests are issued”

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however, Mullen et al. do disclose,

- “PPP is a widely used data link protocol for transmitting Transfer Control Protocol/Internet Protocol (TCP/IP) packets over dial-up telephone connections” [page 1 paragraph 0002];

Therefore, it would have been obvious for one of ordinary skill in the art at the time of the applicant’s invention to include, “standard transmission control protocol (TCP) requests are issued,” in the invention as disclosed by L. Blunk & J. Vollbrecht since EAP is an authentication means for PPP and PPP is widely used with TCP/IP, thus it would be reasonable to expect one of ordinary skill in the art to put these aspects in use together.

Claim 40:

L. Blunk & J. Vollbrecht and Mullen et al. disclose an apparatus for initiating an authentication session in a connection establishment process of a transmission control protocol, as in Claim 39 above, further comprising,

- “a first portion of a standard transmission control protocol request includes a segment used in a three-way handshake” (i.e. “Additional Request packets MUST be sent until a valid Response packet is received, or an optional retry counter expires. Retransmitted Requests MUST be sent with the same Identifier value in order to distinguish them from new Requests”) [page 9].

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Claim 41:

L. Blunk & J. Vollbrecht and Mullen et al. disclose an apparatus for initiating an authentication session in a connection establishment process of a transmission control protocol, as in Claim 39 above, further comprising,

- “an authentication session request includes setting a value in a TCP segment header” (i.e. “The authenticator MUST transmit an EAP packet with the Code field set to 1 (Request)”) [page 5].

Claim 42:

L. Blunk & J. Vollbrecht and Mullen et al. disclose an apparatus for initiating an authentication session in a connection establishment process of a transmission control protocol, as in Claim 39 above, further comprising,

- “a first value is set for a first type of communication session” (i.e. “The Request packet is sent by the authenticator to the peer”) [page 5];
- “a second value is set for a second type of communication session” (i.e. “The peer MUST send a Response packet in reply to a Request packet”) [page 6].

Claim 46:

L. Blunk & J. Vollbrecht disclose a method for initiating an authentication session in a connection establishment process of a transmission control protocol between first and second processors communicating via a network, as in Claim 45 above, but they do not disclose,

- “sending a standard transmission control protocol (TCP) request”

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however, Mullen et al. do disclose,

- “PPP is a widely used data link protocol for transmitting Transfer Control Protocol/Internet Protocol (TCP/IP) packets over dial-up telephone connections” [page 1 paragraph 0002];

Therefore, it would have been obvious for one of ordinary skill in the art at the time of the applicant’s invention to include, “sending a standard transmission control protocol (TCP) request,” in the invention as disclosed by L. Blunk & J. Vollbrecht since EAP is an authentication means for PPP and PPP is widely used with TCP/IP, thus it would be reasonable to expect one of ordinary skill in the art to put these aspects in use together.

Claim 47:

L. Blunk & J. Vollbrecht and Mullen et al. disclose a method for initiating an authentication session in a connection establishment process of a transmission control protocol between first and second processors communicating via a network, as in Claim 46 above, but L. Blunk & J. Vollbrecht do not disclose,

- “the first portion of transmission control protocol data includes a request to establish a standard TCP connection”

however, Mullen et al. do disclose,

- “PPP is a widely used data link protocol for transmitting Transfer Control Protocol/Internet Protocol (TCP/IP) packets over dial-up telephone connections” [page 1 paragraph 0002];

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Therefore, it would have been obvious for one of ordinary skill in the art at the time of the applicant's invention to include, "the first portion of transmission control protocol data includes a request to establish a standard TCP connection," in the invention as disclosed by L. Blunk & J. Vollbrecht since EAP is an authentication means for PPP and PPP is widely used with TCP/IP, thus it would be reasonable to expect one of ordinary skill in the art to put these aspects in use together.

Claim 48:

L. Blunk & J. Vollbrecht and Mullen et al. disclose a method for initiating an authentication session in a connection establishment process of a transmission control protocol between first and second processors communicating via a network, as in Claim 47 above, further comprising,

- "the first portion of transmission protocol data includes a segment used in a three-way handshake" (i.e. "Additional Request packets MUST be sent until a valid Response packet is received, or an optional retry counter expires. Retransmitted Requests MUST be sent with the same Identifier value in order to distinguish them from new Requests")

[page 9].

Claim 49:

L. Blunk & J. Vollbrecht and Mullen et al. disclose a method for initiating an authentication session in a connection establishment process of a transmission control protocol between first and second processors communicating via a network, as in Claim 47 above, further comprising,

- "the authentication session request includes setting a value in a TCP segment header" (i.e. "The authenticator MUST transmit an EAP packet with the Code field set to 1 (Request)") [page 5].



Claim 51:

L. Blunk & J. Vollbrecht disclose an apparatus for initiating an authentication session in a connection establishment process of a transmission control protocol comprising,

- “a client processor” (i.e. “peer - The other end of the point-to-point link; the end which is being authenticated by the authenticator”) [page 3];
- “a server processor” (i.e. “authenticator - The end of the link requiring the authentication. The authenticator specifies the authentication protocol to be used in the Configure-Request during Link Establishment phase”) [page 2];
- “requesting, with the client processor, to establish a transmission session” (i.e. “The Request packet is sent by the authenticator to the peer. Each Request has a type field which serves to indicate what is being requested”) [page 5];
- “creating, with the server processor, an authentication session request in a first portion of transmission control protocol data” (i.e. “The Request packet is sent by the authenticator to the peer. Each Request has a type field which serves to indicate what is being requested”) [page 5];
- “the authentication session request indicates a request to start an authentication session” (i.e. “The authenticator MUST transmit an EAP packet with the Code field set to 1 (Request)”) [page 5];
- “sending the first portion of transmission control protocol data from the server processor to the client processor” (i.e. “The Request packet is sent by the authenticator to the peer. Each Request has a type field which serves to indicate what is being requested”) [page 5];

- “receiving the first portion of transmission control protocol data at the client processor”  
(i.e. “Responses MUST only be sent in reply to a received Request and never retransmitted on a timer. The Identifier field of the Response MUST match that of the Request”) [page 5];
- “conducting authentication session communications” (i.e. “The Request packet is sent by the authenticator to the peer”) [page 5];

but they do not disclose,

- “a computer-readable medium on which is stored instructions for causing the one or more processors to perform a method”

however, Mullen et al. do disclose,

- “memory” [page 3 paragraph 0037];

Therefore, it would have been obvious for one of ordinary skill in the art at the time of the applicant’s invention to include, “a computer-readable medium on which is stored instructions for causing the one or more processors to perform a method,” in the invention as disclosed by L. Blunk & J. Vollbrecht for the purposes of storing information which may be executed.

Claim 52:

L. Blunk & J. Vollbrecht disclose an apparatus for initiating an authentication session in a connection establishment process of a transmission control protocol, as in Claim 51 above, but they do not disclose,

- “standard transmission control protocol (TCP) requests are issued”

however, Mullen et al. do disclose,

- “PPP is a widely used data link protocol for transmitting Transfer Control Protocol/Internet Protocol (TCP/IP) packets over dial-up telephone connections” [page 1 paragraph 0002” [page 1 paragraph 0002];

Therefore, it would have been obvious for one of ordinary skill in the art at the time of the applicant’s invention to include, “standard transmission control protocol (TCP) requests are issued,” in the invention as disclosed by L. Blunk & J. Vollbrecht since EAP is an authentication means for PPP and PPP is widely used with TCP/IP, thus it would be reasonable to expect one of ordinary skill in the art to put these aspects in use together.

Claim 53:

L. Blunk & J. Vollbrecht disclose an apparatus for initiating an authentication session in a connection establishment process of a transmission control protocol, as in Claim 51 above, further comprising,

- “the first portion of a standard transmission control protocol request includes a segment used in a three-way handshake” (i.e. “Additional Request packets MUST be sent until a valid Response packet is received, or an optional retry counter expires. Retransmitted Requests MUST be sent with the same Identifier value in order to distinguish them from new Requests”) [page 9].

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Claim 54:

L. Blunk & J. Vollbrecht disclose an apparatus for initiating an authentication session in a connection establishment process of a transmission control protocol, as in Claim 51 above, further comprising,

- “an authentication session request includes setting a value in a TCP segment header” (i.e. “The authenticator MUST transmit an EAP packet with the Code field set to 1 (Request)”) [page 5].

Claim 55:

L. Blunk & J. Vollbrecht disclose an apparatus for initiating an authentication session in a connection establishment process of a transmission control protocol, as in Claim 51 above, further comprising,

- “a first value is set for a first type of communication session” (i.e. “The Request packet is sent by the authenticator to the peer”) [page 5].
- “a second value is set for a second type of communication session” (i.e. “The peer MUST send a Response packet in reply to a Request packet”) [page 6].

11. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over L. Blunk & J. Vollbrecht (RFC 2284) in view of W. Simpson (RFC 1994).

Claim 10:

L. Blunk & J. Vollbrecht disclose a method for providing authentication in a connection establishment process of a transmission control protocol, wherein a first processor attempts to establish a communication over a network, the method executing in a second processor, as in Claim 1 above, but do not disclose,

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- “receiving a response from the first processor in response to sending the first portion of transmission control protocol data”
- “determining whether the response from the first processor indicates that the first processor will comply with the authentication session”
- “if the first processor will not comply with the authentication session then performing a substep of restricting access of the first processor”

however, W. Simpson does disclose,

- “The peer responds with a value calculated using a "one-way hash" function” [page 3];
- “The authenticator checks the response against its own calculation of the expected hash value. If the values match, the authentication is acknowledged” [page 3];
- “otherwise the connection SHOULD be terminated” [page 3];

Therefore, it would have been obvious for one of ordinary skill in the art at the time of the applicant’s invention to include, “receiving a response from the first processor in response to sending the first portion of transmission control protocol data” and “determining whether the response from the first processor indicates that the first processor will comply with the authentication session” and “if the first processor will not comply with the authentication session then performing a substep of restricting access of the first processor,” in the invention as disclosed by L. Blunk & J. Vollbrecht for the purposes of having a challenge hand-shake authentication to verify a peer.

*Conclusion*

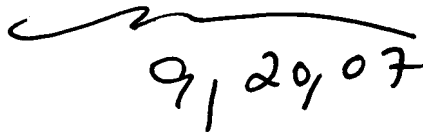
12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Oscar Louie whose telephone number is 571-270-1684. The examiner can normally be reached Monday through Thursday from 7:30 AM to 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nasser Moazzami, can be reached at 571-272-4195. The fax phone number for Formal or Official faxes to Technology Center 2100 is 571-273-8300.

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OAL  
09/20/2007

Nasser Moazzami  
Supervisory Patent Examiner



9, 20, 07